

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): HOOPMAN et al. **J1064 U.S. PTO**
Docket No.: 49933US032 **09/19/01**
Title: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

JC930 U.S. PTO
09/955604
09/19/01

Assistant Commissioner for Patents
ATTN: Box PATENT APPLICATION
Washington, D.C. 20231

We are transmitting the following documents along with this Transmittal Sheet (which is submitted in triplicate):

- ☒ **UTILITY PATENT APPLICATION** including:
- ☒ Specification (73 consecutively numbered pgs, including 153 claims on 33 consecutively numbered pgs and a 1 pg Abstract);
 - ☒ Drawings (8 figures on 4 sheets);
 - ☒ A copy of a signed Declaration, Power of Attorney, and Petition as filed in the parent application (3pgs).
 - ☐ Application Data Sheet (pgs).
 - ☒ An Information Disclosure Statement (2 pgs); 1449 forms (8 pgs); copy of International Search Report (6 pgs); and copies of 178 documents listed on the 1449 forms.
 - ☒ An itemized return postcard.
 - ☐ An Assignment of the invention to and Recordation Form Cover Sheet.
 - ☐ A check in the amount of \$40.00 to pay the Assignment Recording Fee.
 - ☐ A certified copy of a application, Serial No. , filed , the right of priority of which is claimed under 35 U.S.C. §119.
 - ☐ Computer readable form of "Sequence Listing." Applicants state that the paper copy form of the "Sequence Listing" section of the present application, and the computer readable form submitted herewith, are the same.
 - ☒ Other: Request for Filing a Continuation Application Under Rule 1.53(b) (3 pgs); and Communication (13 pgs).
 - ☒ Please charge Deposit Account No. 13-4895 in the amount of \$2198 to pay the filing fee, which is calculated below:

APPLICATION FILING FEE						
	Number of Pending Claims (1)	Claims Included in Basic Filing Fee (2)	Number of Extra Claims (1-2)	Cost per Extra Claim	Fee Required	
Total Claims	36	- 20 =	16	x \$18 =	\$288	
Independent Claims	18	- 3 =	15	x \$80 =	\$1200	
One or More Multiple Dependent Claims Presented? If Yes, Enter \$270 Here →						\$0
Enter Basic Filing Fee (Utility Patent \$710) Here →						\$710
Total Application Filing Fee						\$2198

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 13-4895. Triplicate copies of this sheet are enclosed.

MUETING, RAASCH & GEBHARDT, P.A.
Customer Number: 26813

By: Ann M. Mueeting
Name: Ann M. Mueeting
Reg. No.: 33,977
Direct Dial: 612-305-1217
Facsimile: 612-305-1228

CERTIFICATE UNDER 37 CFR §1.10:

"Express Mail" mailing label number: EL888271625US

Date of Deposit: September 9, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, ATTN: Box PATENT APPLICATION, Washington, D.C. 20231.

By: Rachel Gaylord Gibson
Name: Rachel Gaylord-Gibson

(LARGE ENTITY TRANSMITTAL UNDER RULE 1.10)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket Number	Anticipated Classification		Prior Application	
	Class	Subclass	Examiner	Art Unit
49933US032			J. Leyson	1722

**REQUEST FOR FILING A CONTINUATION APPLICATION
UNDER RULE §1.53(b)**

Assistant Commissioner for Patents
Attn: Box PATENT APPLICATION
Washington, D.C. 20231

Sir:

This is a request for filing a continuation application under 37 CFR §1.53(b) of Serial No. 09/520,032, Confirmation No. Unknown, filed on 6 March 2000, entitled TOOLS TO MANUFACTURE ABRASIVE ARTICLES by the following inventor(s) (name, address, and citizenship):

Timothy L. HOOPMAN

Residence: City of River Falls, State of Wisconsin, U.S.A.
Citizenship: United States of America
Post Office: P.O. Box 33427
Address: St. Paul, Minnesota 55133-3427

Nelson D. SEWALL

Residence: City of Forest Lake, State of Minnesota, U.S.A.
Citizenship: United States of America
Post Office: P.O. Box 33427
Address: St. Paul, Minnesota 55133-3427

1. ☐ Enclosed is a copy of the specification (including claims, abstract, and drawings) as filed in the prior application.
2. ☒ Enclosed is a new specification (including claims and abstract). The entire disclosure of the prior application is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference.
3. ☒ Enclosed is a copy of the Declaration and Power of Attorney filed in the prior application.
4. ☐ Enclosed is a newly executed Declaration and Power of Attorney.
5. ☒ Enclosed are drawings (4 sheets).

Filed: Herewith

Title: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

6. X Cancel in this application claims 1-22, 25-29, 33-55, 58-62, 65-88, 91, 94-112, and 115-132 before calculating the filing fee. (At least one independent claim must be retained for filing purposes.)
7. A preliminary amendment is enclosed.
8. X The filing fee is calculated below:

CLAIMS AS FILED			
NUMBER FILED	NUMBER EXTRA	RATE	BASIC FEE \$710
Total Claims 36-20 =	16	\$18	\$288
Independent Claims 18-3 =	15	\$80	\$1200
MULTIPLE DEPENDENT CLAIM PRESENTED		\$270	\$0
FILING FEE:			\$2198

9. X Please charge Deposit Account No. 13-4895 in the amount of \$2198.00.
10. X The Commissioner is hereby authorized to charge any additional fees as set forth in 37 CFR §1.16 to 1.18 which may be required by this paper or credit any overpayment to Account No. 13-4895.
11. This application is being filed by less than all of the inventors named in the prior application. Please delete the names of the following inventor(s) who are not inventors of the invention claimed in the present application:
12. X Amend the specification by inserting as the first sentence on page 1, the following: -- This application is a continuation of Application No. 09/520,032 (filed March 6, 2000), pending, which is a division of Application No. 09/259,488 (filed February 26, 1999), issued as U.S. Patent NO. 6,076,248, which application is a division of Application No. 08/940,267 (filed September 29, 1997), issued as U.S. Patent No. 6,129,540, which is a continuation of Application No. 08/450,814 (filed May 25, 1995), abandoned, which is a division of Application No. 08/120,300 (filed September 13, 1993), abandoned. --
13. Priority of foreign application Serial No. , filed on in (country) is claimed under 35 U.S.C. §119.
14. X The prior application is assigned of record to 3M Innovative Properties Company.

T06T60"4095560

Filed: Herewith

Title: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

15. X The Power of Attorney in the prior application is to:

Gregory D. Allen
Office of Intellectual Property Counsel
3M Innovative Properties Company
P.O. Box 33427
St. Paul, Minnesota 55133-3427
Customer Number 26813

Address all future communications to:

Office of Intellectual Property Counsel
3M Innovative Properties Company
P.O. Box 33427
St. Paul, Minnesota 55133-3427

Attn: Gregory D. Allen
(Telephone: 612-305-1220)
(Facsimile: 612-305-1228)

Date:

Sept. 19, 2001

Ann M. Mueting

Ann M. Mueting
Reg. No. 33,977
Direct Dial (612)305-1217

CERTIFICATE UNDER 37 CFR §1.10:

"Express Mail" mailing label number: EL888271625US

Date of Deposit: September 19, 2001

The undersigned hereby certifies that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, **Attn: Box Patent Application**, Washington, D.C. 20231.

By:

Rachel Gylinski-Gebau

Name:

Rachel Gylinski-Gebau



PATENT
Docket No. 49933US032

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): HOOPMAN et al.) Group Art Unit:
) Group Art Unit of Parent: 1722
)
Serial No.: Unassigned) Examiner: Unknown
Serial No. of Parent: 09/520,032) Examiner of Parent: Joseph Leyson
)
Confirmation No.: Unknown)
)
Filing Date: Herewith)
Filing Date of Parent: March 6, 2000)
)
For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

COMMUNICATION

Assistant Commissioner for Patents
Attn: Box Patent Application
Washington, D.C. 20231

Sir:

Prior to taking up the above-identified patent application, the Examiner is requested to consider the accompanying remarks. The pending claims are claims 23-24, 30-32, 56-57, 63-64, 89-90, 92-93, 113-114, and 133-153. Support for these claims can be found throughout the specification, including the originally filed claims and drawings, as would be clearly understood by one of skill in the art. Examples of locations of support for these new claims are listed in the table below.

Claim 1-21	Support can be found, e.g., in the originally filed claims in the parent application Serial No. 09/520,032 (filed March 6, 2000).
Claim 22	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 20, line 27 through page 21, line 2; and at page 26, line 16 through page 27, line 7.
Claim 23	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page

Communication

Page 2 of 13

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

	10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 20, line 27 through page 21, line 2; and at page 26, line 16 through page 27, line 7.
Claim 24	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 20, line 27 through page 21, line 2; and at page 26, line 16 through page 27, line 7.
Claim 25	Support can be found, e.g., at page 6, lines 18-25; at page 20, line 27 through page 21, line 18; and at page 26, line 16 through page 27, line 7.
Claim 26	Support can be found, e.g., at page 6, lines 18-25; at page 20, line 27 through page 21, line 18; and at page 26, line 16 through page 27, line 7.
Claim 27	Support can be found, e.g., at page 6, lines 18-25; at page 20, line 27 through page 21, line 18; and at page 26, line 16 through page 27, line 7.
Claim 28	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 19, lines 14-20; at page 20, line 27 through page 21, line 18; and at page 26, line 16 through page 27, line 7.
Claim 29	Support can be found, e.g., at page 6, lines 18-25; at page 10, lines 5-10; at page 11, lines 19-28; at page 21, lines 19-26; and at page 26, line 16 through page 27, line 7.
Claim 30	Support can be found, e.g., at page 6, line 18 through page 7, line 15; and at page 26, line 16 through page 27, line 7.
Claim 31	Support can be found, e.g., at page 6, line 18 through page 7, line 15; and at page 26, line 16 through page 27, line 7.
Claim 32	Support can be found, e.g., at page 6, lines 18-25; at page 7, lines 6-15; at page 26, line 16 through page 27, line 7; and in originally filed claim 1.
Claim 33-43	Support can be found, e.g., at page 28, lines 12-17; and above with respect to claims 22-32.
Claim 44-54	Support can be found, e.g., at page 28, lines 12-17; and above with respect to

Communication

Page 3 of 13

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

	claims 22-32.
Claim 55	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 19, lines 14-20; at page 20, line 27 through page 21, line 2; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 56	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 57	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 58	Support can be found, e.g., at page 6, lines 18-25; at page 7, line 16 through page 8, line 24; at page 20, line 27 through page 21, line 18; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 59	Support can be found, e.g., at page 6, lines 18-25; at page 7, line 16 through page 8, line 24; at page 20, line 27 through page 21, line 18; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 60	Support can be found, e.g., at page 6, lines 18-25; at page 7, line 16 through page 8, line 24; at page 20, line 27 through page 21, line 18; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 61	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 19, lines 14-20; at page 20, line 27 through page 21, line 18; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 62	Support can be found, e.g., at page 6, lines 18-25; at page 7, line 16 through page 8, line 24; at page 10, lines 5-10; at page 11, lines 19-28; at page 21, lines 19-26; and at page 26, line 16 through page 27, line 7; and in originally filed claim 6.

Communication

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

Page 4 of 13

Claim 63	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 64	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 26, line 16 through page 27, line 7; and in originally filed claim 6.
Claim 65	Support can be found, e.g., at page 6, lines 18 through page 8, line 24; at page 26, line 16 through page 27, line 7; and in originally filed claims 1 and 6.
Claim 66-76	Support can be found, e.g., at page 28, lines 12-17; and above with respect to claims 55-65.
Claim 77-87	Support can be found, e.g., at page 28, lines 12-17; and above with respect to claims 55-65.
Claim 88, 91	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 19, lines 14-20; at page 20, line 27 through page 21, line 2; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 89, 92	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 90, 93	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 94	Support can be found, e.g., at page 6, lines 18-25; at page 20, line 27 through page 21, line 18; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 95	Support can be found, e.g., at page 6, lines 18-25; at page 20, line 27 through page 21, line 18; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 96	Support can be found, e.g., at page 6, lines 18-25; at page 20, line 27 through

Communication

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

Page 5 of 13

	page 21, line 18; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 97	Support can be found, e.g., at page 6, lines 18-25; at page 10, lines 5-10; at page 11, lines 19-28; at page 21, lines 19-26; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claims 98-104	Support can be found, e.g., at page 28, lines 12-17; and above with respect to claims 91-97.
Claims 105-111	Support can be found, e.g., at page 28, lines 12-17; and above with respect to claims 91-97.
Claim 112	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 19, lines 14-20; at page 20, line 27 through page 21, line 2; at page 26, line 16 through page 27, line 7; in originally filed claim 6; and at page 10, lines 23-27.
Claim 113	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; in originally filed claim 6; and at page 10, lines 23-27.
Claim 114	Support can be found, e.g., at page 6, line 18 through page 8, line 24; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; in originally filed claim 6; and at page 10, lines 23-27.
Claim 115	Support can be found, e.g., at page 6, lines 18-25; at page 7, line 16 through page 8, line 24; at page 20, line 27 through page 21, line 18; at page 26, line 16 through page 27, line 7; in originally filed claim 6; and at page 10, lines 23-27.
Claim 116	Support can be found, e.g., at page 6, lines 18-25; at page 7, line 16 through page 8, line 24; at page 20, line 27 through page 21, line 18; at page 26, line 16 through page 27, line 7; in originally filed claim 6; and at page 10, lines 23-27.
Claim 117	Support can be found, e.g., at page 6, lines 18-25; at page 7, line 16 through page 8, line 24; at page 20, line 27 through page 21, line 18; at page 26, line 16

TOOLS TO MANUFACTURE ABRASIVE ARTICLES

Communication

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

Page 6 of 13

	through page 27, line 7; in originally filed claim 6; and at page 10, lines 23-27.
Claim 118	Support can be found, e.g., at page 6, lines 18-25; at page 7, line 16 through page 8, line 24; at page 10, lines 5-10; at page 11, lines 19-28; at page 21, lines 19-26; and at page 26, line 16 through page 27, line 7; in originally filed claim 6; and at page 10, lines 23-27.
Claim 119-125	Support can be found, e.g., at page 28, lines 12-17; and above with respect to claims 112-118.
Claim 126-132	Support can be found, e.g., at page 28, lines 12-17; and above with respect to claims 112-118.
Claim 133	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 134	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; at page 10, lines 23-27; and at page 22, lines 14-16.
Claim 135	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; at page 10, lines 23-27; and at page 22, lines 14-16.
Claim 136	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; at page 10, lines 23-27; and at page 22, lines 14-16.
Claim 137	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 138	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16

Toolbox-40933560

Communication

Page 7 of 13

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

	through page 27, line 7; at page 10, lines 23-27; and at page 22, lines 14-16.
Claim 139	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; at page 10, lines 23-27; and at page 22, lines 14-16.
Claim 140	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 141	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 142	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 143	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 144	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 145	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; at page 10, lines 23-27; and at page 22, lines 14-16.
Claim 146	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; at page 10, lines 23-27; and at page 22, lines 14-16.
Claim 147	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page

Communication

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

Page 8 of 13

	10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 148	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 149	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 150	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.
Claim 151	Support can be found, e.g., at page 6, lines 18-25; at page 7, lines 6-15; at page 26, line 16 through page 27, line 7; and in originally filed claim 1.
Claim 152	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; at page 10, lines 23-27; and at page 22, lines 14-16.
Claim 153	Support can be found, e.g., at page 6, line 18 through page 7, line 15; at page 10, line 23 through page 11, line 2; at page 19, lines 14-20; at page 26, line 16 through page 27, line 7; and at page 10, lines 23-27.

Remarks

In the parent application, Serial No. 09/520,032, filed March 6, 2000, claims 14-16, 18, 22-24, 29-32, 88-93, and 97 were rejected under §102(e) in view of Calhoun et al. (U.S. Patent No. 5,437,754). Such claims are being re-presented herein as claims 14-16, 18, 22-24, 29-32, 88-93, and 97, respectively, except claims 14-16, 18, 22, 29, 88, 91, and 97 have been cancelled in the accompanying Request for Filing a Continuation Application, and the following claims have been amended: 30 (to recite a third group of cavities having a third shape), 31 (to recite a third

Communication

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

Page 9 of 13

group of cavities having a third size), 32 (to recite a third cavity having third dimensions). Additional amendments have been made, the majority of which are primarily typographical in nature.

Also being presented are new claims 133-148, which are directed to a production tool, as well as former claims 56-57, 63-64, and 113-114, which are all independent claims directed to a method of making a production tool, and new claims 149-153, which are also method claims.

In view of the §102(e) (anticipation) rejection in the parent application based on Calhoun et al. the following comments are being provided to explain why a §102(e) (anticipation) rejection based on Calhoun et al. would not be proper for the instant claims.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” M.P.E.P. §2131 (quoting Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” M.P.E.P. §2131 (quoting Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)).

“The standards of anticipation are strict. The invention must be disclosed within the four corners of a single reference. If a reference is silent or ambiguous with respect to an element or feature of the invention, that gap cannot be filled by an assumption or by combining one reference with another. An anticipating reference must teach the invention. It is not sufficient to point to silence or ambiguity after the invention and argue that the invention could be made out from the reference.” Plastering Development Center, Inc. v. Perma Glas-Mesh Corp., 371 F.Supp. 939, 943, 944, 179 USPQ 838, 841 (N.D. Ohio 1973) (quoting General Tire & Rubber Co. v. The Firestone Tire & Rubber Co., 349 F.Supp. 345, 356, 174 USPQ 427, 442, 443 (N.D. Ohio 1972)). Anticipation cannot be predicated on teachings in a reference that are vague or based on conjecture. W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303 (Fed. Cir. 1983).

“Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim.” Jamesbury Corp. v. Litton Industrial Products, 756 F.2d 1556, 1560, 225 USPQ 253, 256 (Fed. Cir. 1985) (quoting Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983)); Soundsciber Corp. v. U.S., 175 Ct.Cl. 644, 360 F.2d 954, 960, 148 USPQ 298, 301 (1966). A prior art disclosure that ‘almost’ meets that standard may render the claim invalid under §103; it does not ‘anticipate.’ Jamesbury Corp. v. Litton Industrial Products, 225 USPQ 253, 256 (Fed. Cir. 1985) (quoting from Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983)).

Although Calhoun et al. do generally disclose a production tool having three-dimensional cavities that can be of different sizes and/or shapes, such shapes being truncated cones, truncated pyramids, cubes, cylinders, elongated troughs, chevrons, intersecting grooves, hemispheres, and combinations thereof, there is no specific disclosure of Applicants’ invention as claimed. For example:

Calhoun et al. do not specifically teach the presence of at least three pluralities of cavities having a plurality of angles forming a geometric shape, wherein at least one of the angles of the first plurality is different from all the angles of each of the second and third plurality of angles, and at least one of the angles of the second plurality is different from all the angles of each of the first and third plurality of angles (see claims 23 and 56).

Calhoun et al. do not specifically teach the presence of at least four pluralities of cavities having a plurality of angles forming a geometric shape, wherein at least one of the angles of the first plurality is different from all the angles of each of the second, third, and fourth plurality of angles, at least one of the angles of the second plurality is different from all the angles of each of the first, third, and fourth plurality of angles, and at least one of the angles of the third plurality is different from all the angles of each of the first, second, and fourth plurality of angles (see claims 24 and 57).

Calhoun et al. do not specifically teach the presence of at least three pluralities of cavities having different shapes (see claims 30 and 63) or at least three pluralities of cavities having different

sizes (see claims 31 and 64).

Calhoun et al. do not specifically teach the presence of at least three cavities each having a boundary defined by at least four planar surfaces wherein adjacent planar surfaces of one cavity meet at an edge to define an angle of intersection therebetween, wherein at least one angle of intersection of the first cavity is different from all the angles of intersection of the second and third cavities, and at least one angle of intersection of the second cavity is different from all the angles of intersection of the first and third cavities (see claims 32 and 151).

Calhoun et al. do not specifically teach the presence of at least three pluralities of cavities having a plurality of base edge lengths forming the base of a geometric shape, wherein at least one of the base edge lengths of the first plurality is different from all the base edge lengths of each of the second and third plurality of base edge lengths, and at least one of the base edge lengths of the second plurality is different from all the base edge lengths of each of the first and third plurality of base edge lengths (see claims 92 and 113).

Calhoun et al. do not specifically teach the presence of at least four pluralities of base edge lengths forming the base of a geometric shape, wherein at least one of the base edge lengths of the first plurality is different from all the base edge lengths of each of the second, third, and fourth plurality of base edge lengths, at least one of the base edge lengths of the second plurality is different from all the base edge lengths of each of the first, third, and fourth plurality of base edge lengths, and at least one of the base edge lengths of the third plurality is different from all the base edge lengths of each of the first, second, and fourth plurality of base edge lengths (see claims 93 and 114).

Calhoun et al. do not specifically teach the presence of at least three rows of cavities each having a geometric shape including a base and a plurality of base edge lengths forming the base, wherein at least one of the base edge lengths of the first row of cavities is different from all the base edge lengths of each of the second and third row of cavities, and at least one of the base edge lengths of the second row of cavities is different from all the base edge lengths of each of

Communication

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

Page 12 of 13

the first and third row of cavities (see claims 136 and 152).

Calhoun et al. do not specifically teach the presence of at least three cavities each of which has a geometric shape including a base and a plurality of base edge lengths forming the base, wherein at least one of the base edge lengths of the first plurality is different from all the base edge lengths of each of the second and third plurality of base edge lengths, and at least one of the base edge lengths of the second plurality is different from all the base edge lengths of each of the first and third plurality of base edge lengths (see claims 143 and 153).

Thus, Calhoun et al. do not teach each and every element of Applicants' claims. That is, there are claim elements recited in Applicants' independent claims missing from Calhoun et al. Thus, it is respectfully submitted that Calhoun et al. is not suitable for use in an anticipation rejection; rather, it is at most (if even that) suitable for an obviousness rejection.

095504-091901
"06T60" 40955560

Communication

Serial No.: Unassigned

Filed: Herewith

For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES

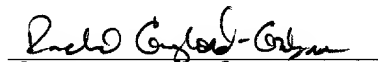
Page 13 of 13

CONCLUSION

The application should now be in condition for examination and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

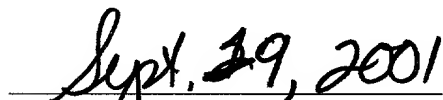
CERTIFICATE UNDER 37 C.F.R. §1.10:

The undersigned hereby certifies that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated below and is addressed to the Assistant Commissioner for Patents, **Attn: Box Patent Application**, Washington, D.C. 20231.


Rachel Gagliardi-Carban

"Express Mail" mailing label number:
EL888271625US

Date of Deposit: September 19, 2001


Date

Respectfully submitted for

HOOPMAN et al.

By
Mueting, Raasch & Gebhardt, P.A.
P.O. Box 581415
Minneapolis, MN 55458-1415
Telephone (612)305-1220
Facsimile (612)305-1228
Customer Number 26813

By: 
Ann M. Mueting
Reg. No. 33,977
Direct Dial (612)305-1217